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**** WARNING ** WARNING ** WARNING ** WARNING ****
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January 31, 2008

11-Imp-78,111-R19.5/R24.5,37.6/38.5
11-167884
HPLU-6211(067)E

Addendum No. 3

Dear Contractor:

This addendum is being issued to the contract for construction on State highway in IMPERIAL COUNTY IN AND NEAR BRAWLEY ON ROUTE 78 FROM 0.6 KM EAST OF HOVLEY ROAD TO 0.4 KM NORTH OF ROUTE 78/111 JUNCTION AND ON OLD ROUTE 111 FROM 0.5 KM SOUTH OF SHANK ROAD TO NEW RIVER BRIDGE.

Submit bids for this work with the understanding and full consideration of this addendum. The revisions declared in this addendum are an essential part of the contract.

Bids for this work will be opened on February 14, 2008.

This addendum is being issued to revise the Project Plans, the Notice to Contractors and Special Provisions, and the Proposal and Contract.

Project Plan Sheets 1, 15, 16, 17, 29, 30, 110, 228, 230, 284, 287 and 288 are revised. Half-sized copies of the revised sheets are attached for substitution for the like-numbered sheets.

Project Plan Sheets 131A, 131B, 131C, 131D, 288A, 288B, 288C, 288D, 288E, 288F, 288G, 288H, 288I, 288J, 288K, 288L, 288M, 288N, 288O, 288P, 288Q, 288R, 288S, and 288T are added. Half-sized copies of the added sheets are attached for addition to the project plans.

In the Notice to Contractors and Special Provisions, the following Standard Plans are added to the Section "Standard Plans List":

"H1	Planting and Irrigation Abbreviations
H2	Planting and Irrigation Symbols
H3	Planting and Irrigation Details
H5	Planting and Irrigation Details
H6	Planting and Irrigation Details
H7	Planting and Irrigation Details"

In the Special Provisions, Section 2-1.03, "SMALL BUSINESS ENTERPRISE GOAL," is added as attached.

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In the Special Provisions, Section 3, "AWARD AND EXECUTION OF CONTRACT," the following paragraph is added after the fourth paragraph:

"A Small Business Participation Report will be included in the contract documents to be executed by the successful bidder. The purpose of this form is to collect small business participation data. Even if no small business participation is reported, the successful bidder must execute and return the form."

In the Special Provisions, Section 4, "BEGINNING OF WORK, TIME OF COMPLETION, AND LIQUIDATED DAMAGES," is revised as attached.

In the Special Provisions, Section 5-1.16, "PAYMENTS," is revised as attached.

In the Special Provisions, Section 5-1.27, "PALEONTOLOGY," is added as attached.

In the Special Provisions, Section 8-1.03, "STATE FURNISHED MATERIALS," the following item is added to the items of the second paragraph:

"E. Padlocks for tubular steel gates and irrigation controller enclosure cabinets."

In the Special Provisions, Section 10-1.01, "ORDER OF WORK," is revised as attached.

In the Special Provisions, Section 10-1.02, "CODE OF SAFE WORKING PRACTICES," the last sentence in the fifth paragraph is deleted.

In the Special Provisions, Section 10-1.02, "CODE OF SAFE WORKING PRACTICES," the second sentence in the ninth paragraph is revised as follows:

"The first meeting shall be prior to start of Bridge number 58-0337 R/L construction."

In the Special Provisions, Section 10-1.02, "CODE OF SAFE WORKING PRACTICES," the last sentence of the eleventh paragraph is revised as follows:

"The number of State personnel will be 10."

In the Special Provisions, Section 10-1.33, "EARTHWORK," the sixth paragraph is revised as follows:

"Embankment material within 0.8 m of the finished grade shall have a Sand Equivalent (SE) between 10 and 45. On site blending of Imported Borrow, Local Borrow, or Roadway Excavation shall not be permitted to achieve Sand Equivalent (SE) requirements for embankment construction within 0.8 m of the finished grade."

In the Special Provisions, Section 10-1.33, "EARTHWORK," in the ninth paragraph, item "C" is revised as follows:

"The quantity of imported borrow to be paid for will be that quantity remaining after deducting the adjusted quantities of excavation from the total embankment quantity and then adding a quantity of 26,320 cubic meters for the anticipated effect of subsidence."

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In the Special Provisions, Section 10-1.47, "PILING," subsection "OPEN ENDED CAST-IN-STEEL-SHELL CONCRETE PILING," the last sentence in the second paragraph is revised as follows:

"Drilling shall not be used within 1.5 meters of the specified tip elevation for 610 mm shell or 6.1 meters of the specified tip elevation for 1219 mm shells, and 3.0 meters of the specified tip elevation for 406 mm pipe piles."

In the Special Provisions, Section 10-1.50, "CONCRETE STRUCTURES," subsection "FALSEWORK," the following paragraph is added after the second paragraph:

"In addition to the provisions in Section 51-1.06A, "Falsework Design and Drawings," of the Standard Specifications, the time to be provided for the Engineer's review of the working drawings for specific structures, or portions thereof, shall be as follows:

Structure or Portion of Structure	Total Review Time - Weeks
Rail Road Overhead (Bridge No. 58-0340 R/L)	9 Weeks

In the Special Provisions, Section 10-1.585, "HABITAT RESTORATION SIGN," is added as attached.

In the Special Provisions, Section 10-1.586, "INFORMATION SIGN," is added as attached.

In the Special Provisions, Section 10-1.795, "TUBULAR STEEL GATE," is added as attached.

In the Special Provisions, Section 10-2, "(BLANK)," is replaced with Section 10-2 "HIGHWAY PLANTING AND IRRIGATION SYSTEMS," as attached.

In the Proposal and Contract, the Engineer's Estimate Items 7, 35, 36, 43, and 128 are revised, Items 169, 170, 171, 172, 173, 174 and 175 are added and Item 168 is deleted as attached.

To Proposal and Contract book holders:

Replace pages 3, 4, 5, 9, and 11 of the Engineer's Estimate in the Proposal with the attached revised pages 3, 4, 5, 9 and 11 of the Engineer's Estimate. The revised Engineer's Estimate is to be used in the bid.

Inquiries or questions in regard to this addendum must be communicated as a bidder inquiry and must be made as noted in the NOTICE TO CONTRACTORS section of the Notice to Contractors and Special Provisions.

Indicate receipt of this addendum by filling in the number of this addendum in the space provided on the signature page of the proposal.

Submit bids in the Proposal and Contract book you now possess. Holders who have already mailed their book will be contacted to arrange for the return of their book.

Inform subcontractors and suppliers as necessary.

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This office is sending this addendum by GSO overnight mail to Proposal and Contract, book holders to ensure that each receives it. A copy of this addendum is available for the contractor's use on the Internet Site:

http://www.dot.ca.gov/hq/esc/oe/weekly_ads/addendum_page.html

If you are not a Proposal and Contract book holder, but request a book to bid on this project, you must comply with the requirements of this letter before submitting your bid.

Sincerely,

ORIGINAL SIGNED BY

REBECCA D. HARNAGEL, Chief
Office of Plans, Specifications & Estimates
Division of Engineering Services - Office Engineer

Attachments

2-1.03 SMALL BUSINESS ENTERPRISE GOAL

The Department has established an overall 25 percent small business participation goal. To determine if the goal is achieved, the Department is tracking small business participation on all contracts.

Contractors, subcontractors, suppliers, and service providers who qualify as small business are encouraged to apply for certification as a small business by submitting their application to:

Office of Small Business and DVBE Services
Department of General Services
707 Third Street
West Sacramento, CA 95605
(916) 375-4940 or (800) 559-5529

SECTION 4. BEGINNING OF WORK, TIME OF COMPLETION, AND LIQUIDATED DAMAGES

The first working day is the fifty-fifth day after contract approval.

The Contractor shall not begin work at the job site, except for measuring controlling field dimensions and locating utilities, until the following submittals are received and approved by the Engineer:

1. Baseline Progress Schedule (Critical Path Method)
2. Storm Water Pollution Prevention Plan (SWPPP)
3. Notification of Dispute Review Board (DRB) nominee and disclosure statement.

In addition to the above submittals, the Contractor shall not begin work at the job site, except for measuring controlling field dimensions and locating utilities, until the following submittals are received by the Engineer:

1. Notice of Materials To Be Used.
2. Contingency plan for reopening closures to public traffic.
3. Written statement from the vendor that the order for structural steel has been received and accepted by the vendor.
The statement shall show the dates that the materials will be shipped.

The Contractor may begin work at the job site before the fifty-fifth day after contract approval if:

1. The Contractor submits and obtains required approvals for the submittals before the fifty-fifth day.
2. Authorized by the Engineer in writing.

The Department will grant time extensions for delays only that are beyond the Contractor's control and that prevent the Contractor from starting work at the job site on the first working day.

The work (except plant establishment work) shall be diligently prosecuted to completion before the expiration of **650 WORKING DAYS**.

The Contractor shall pay to the State of California the sum of \$ **11,300** per day for each day's delay in finishing the work (except plant establishment work) in excess of the number of working days specified above.

The work (including plant establishment work) shall be diligently prosecuted to completion before the expiration of **900 WORKING DAYS**.

The Contractor shall pay to the State of California the sum of \$600 per day for each day's delay in completing the plant establishment work.

In no case will liquidated damages of more than \$ **11,300** per day be assessed.

5-1.16 PAYMENTS

Attention is directed to Sections 9-1.06, "Partial Payments," and 9-1.07, "Payment After Acceptance," of the Standard Specifications and these special provisions.

For the purpose of making partial payments pursuant to Section 9-1.06, "Partial Payments," of the Standard Specifications, the amount set forth for the contract items of work hereinafter listed shall be deemed to be the maximum value of the contract item of work which will be recognized for progress payment purposes:

A. Clearing and Grubbing	\$140,000.00
B. Develop Water Supply	\$15,000.00
C. Progress Schedule (Critical Path Method)	\$15,000.00
D. Lead Compliance Plan	\$10,000.00
E. Prepare Code of Safe Working Practices	\$50,000.00

After acceptance of the contract pursuant to the provisions in Section 7-1.17, "Acceptance of Contract," of the Standard Specifications, the amount, if any, payable for a contract item of work in excess of the maximum value for progress payment purposes hereinabove listed for the item, will be included for payment in the first estimate made after acceptance of the contract.

In determining the partial payments to be made to the Contractor, only the following listed materials will be considered for inclusion in the payment as materials furnished but not incorporated in the work:

- A. Prestressing Steel including ducts and anchorages
- B. Piling
- C. Precast Prestressed Concrete Girders
- D. Bar Reinforcing Steel
- E. Timber Lagging
- F. Bridge Deck Drainage System
- G. Chain Link Railing
- H. Joint Seals
- I. Alternative Culvert Pipe
- J. Sewer Pipes and Appurtenances
- K. Fences and Gates
- L. Metal Beam Guard Railing
- M. Crash Cushion
- N. Signal and Lighting Standards
- O. Welded Steel Pipe
- P. Miscellaneous Drainage Facilities
- Q. Miscellaneous Iron and Steel
- R. Pavement Markers
- S. Pavement Dowels
- T. Rock Slope Protection Fabric
- U. Luminaires
- V. Signal Heads and Mounting Brackets
- W. Tubular Steel Gate
- X. Irrigation Controllers and Controller Enclosures
- Y. Remote control Valves
- Z. Irrigation Plastic Pipe Supply Lines

5-1.27 PALEONTOLOGY

Attention is directed to the California Public Resources Code Section 5097.5, which protects vertebrate paleontological sites or other paleontological features situated on public lands. In compliance with the California Environmental Quality Act (CEQA) requirements a Paleontologist will monitor the excavation within the project limits to salvage fossil specimens as necessary during construction within the project limits.

A Paleontologist will be provided by the State for this project.

The Contractor shall provide the Engineer with a schedule of excavation operations within the project limits in writing at least 15 working days prior to construction and update the schedule as needed. The Contractor shall notify the Engineer 15 days in advance of the start of excavation operations.

If fossils are discovered, the Engineer may temporarily divert or suspend the excavation operations until the Paleontologist completes the salvage and removal of the fossil specimens.

All fossil specimens salvaged from within the State Right of Way shall remain the property of the State.

A delay due to paleontological monitoring or the salvage and removal of fossil specimens, when ordered by the Engineer, will be considered a temporary suspension of work, in accordance with the provisions in Section 8-1.05, "Temporary Suspension of Work," of the Standard Specifications.

Any additional excavation required due to the discovery of paleontological remains, when ordered by the Engineer will be paid for as extra work as provided in Section 4-1.03, "Extra Work," of the Standard Specifications.

10-1.01 ORDER OF WORK

Order of work shall conform to the provisions in Section 5-1.05, "Order of Work," of the Standard Specifications and these special provisions.

Construction of the "S", "I", "T", "W" "Imp-111", "D" and "BB" Lines, shall be first order of work as shown on the plans.

Construction of the "P" Line between stations 219+40 and 219+60, shall be last order of work as shown on the plans. Access through the existing Alley Way shall be maintained until all other local roads have been built or when directed by the Engineer.

All work on Bridge number 58-0341 R/L shall be completed by December 2009.

Work on Bridge number 58-0337 R/L shall not begin until September 15, 2008.

The Highway Planting and Irrigation work shall begin 10 working days after the completion of the Roadway Excavation at the Excavation Site and shall continue without interruption until the Highway Planting and Irrigation work is complete.

The following parcels do not have Right of Way clearance; therefore the Contractor will not be permitted to enter the parcels as shown on the plans, until after the Right-of-Way clearance dates shown.

Right-of-Way Parcel Numbers and Clearance Dates		
1	32642	03/01/2008
2	32644	05/01/2008

The Contractor shall not encroach upon Imperial Irrigation District easements without prior written approval of the Engineer.

Operation of the canals and drains shall not be interrupted. Laterals may be interrupted, with the coordination and approval of the Imperial Irrigation District, for a time length which will be determined by the Imperial Irrigation District.

Attention is directed to "Migratory Birds" and "Clearing and Grubbing" of these special provisions regarding notification requirements and time constraints for performing work.

Prior to performing any work off the pavement, the Contractor shall install temporary construction entrance as shown on the plans. Attention is directed to "Temporary Construction Entrance" of these special provisions.

Temporary concrete washout facility shall be in place prior to the start of any concrete work. Attention is directed to "Temporary Concrete Washout Facility" of these special provisions.

Application of temporary erosion control may require several move-in/move-out or erosion control equipment. Attention is directed to "Move-In/Move-Out (Temporary Erosion Control)" of these special provisions.

Pile driving at the New River Bridge shall not be allowed February 1 to August 31, Piles shall not be driven at night or weekends.

Any staging areas in the proximity of the New River must be located east of New River Bridge.

Construction of the abutment foundations at WB R-78 to R-111 Offramp, Brawley Beef Way, R-78/R-111 Separation, and Railroad Overhead shall not begin until primary consolidation of the underlying clay soils has been completed.

Attention is directed to "Code of Safe Working Practices" prior to performing work near the New River.

Attention is directed to "Machine Control Grading" of these special provisions regarding request for electronic information.

Attention is directed to "Slope Paving" and "Slope Paving (Stamped Concrete)" of these special provisions regarding constructing a 1.2 m by 1.8 m test panel prior to placing the permanent slope paving.

Temporary railing (Type K), traffic plastic drums and temporary crash cushions shall be secured in place prior to commencing work for which the temporary railing, traffic plastic drums and crash cushions are required.

Attention is directed to "Jointed Plain Concrete Pavement" of these special provisions regarding the Contractor furnishing tests and mix proportions for concrete to be used in concrete pavement, Test Strip and Prepaving Conference.

Attention is directed to "Environmentally Sensitive Area" and "Temporary Fence (Type ESA)" of these special provisions. Prior to beginning work, the boundaries of the Environmentally Sensitive Areas (ESA) shall be clearly delineated in the field. The boundaries shall be delineated by the installation of temporary fence (Type ESA).

Attention is directed to "Water Pollution Control" of these special provisions regarding the submittal and approval of the Storm Water Pollution Prevention Plan prior to performing work having potential to cause water pollution.

The first order of work shall be to place the order for the traffic signal equipment. The Engineer shall be furnished a statement from the vendor that the order for the traffic signal equipment has been received and accepted by the vendor.

The uppermost layer of new pavement shall not be placed until all underlying conduits and loop detectors have been installed.

Prior to commencement of the traffic signal functional test at any location, all items of work related to signal control shall be completed and all roadside signs, pavement delineation, and pavement markings shall be in place at that location.

Attention is directed to "Maintaining Traffic" and "Temporary Pavement Delineation" of these special provisions and to the stage construction sheets of the plans.

Attention is directed to "Progress Schedule (Critical Path Method)" of these special provisions regarding the submittal of a general time-scaled logic diagram within 10 days after approval of the contract. The diagram shall be submitted prior to performing any work that may be affected by any proposed deviations to the construction staging of the project.

The work shall be performed in conformance with the stages of construction shown on the plans. The Contractor may submit a proposal to proceed with work in subsequent stages if the work does not conflict with work in preceding stages. The proposal must include:

1. Revised Staging plans.
2. Revised schedule, including revised staging and showing that satisfactory progress is maintained.
3. Statement of cost savings.

In each stage, after completion of the preceding stage, the first order of work shall be the removal of existing pavement delineation as directed by the Engineer. Pavement delineation removal shall be coordinated with new delineation so that lane lines are provided at all times on traveled ways open to public traffic.

Before obliterating any pavement delineation (traffic stripes, pavement markings, and pavement markers) that is to be replaced on the same alignment and location, as determined by the Engineer, the pavement delineation shall be referenced by the Contractor, with a sufficient number of control points to reestablish the alignment and location of the new pavement delineation. The references shall include the limits or changes in striping pattern, including one- and 2-way barrier lines, limit lines, crosswalks and other pavement markings. Full compensation for referencing existing pavement delineation shall be considered as included in the contract prices paid for new pavement delineation and no additional compensation will be allowed therefor.

Prior to applying asphaltic emulsion (paint binder), the Contractor shall cover all manholes, valve and monument covers, grates, or other exposed facilities located within the area of application, using a plastic or oil resistant construction paper secured to the facility being covered by tape or adhesive. The covered facilities shall be referenced by the Contractor, with a sufficient number of control points to relocate the facilities after the asphalt concrete has been placed. After completion of the asphalt concrete operation, all covers shall be removed and disposed of in a manner satisfactory to the Engineer. Full compensation for covering manholes, valve and monument covers, grates, or other exposed facilities, referencing, and removing temporary cover shall be considered as included in the contract price paid per tonne for Asphalt Concrete (Type A), and no additional compensation will be allowed therefor.

At the end of each working day if a difference in excess of 0.3-meter exists between the elevation of the existing pavement and the elevation of excavations within 2.4 m of the traveled way, material shall be placed and compacted against the vertical cuts adjacent to the traveled way. During excavation operations, native material may be used for this purpose; however, once placing of the structural section commences, structural material shall be used. The material shall be placed to the level of the elevation of the top of existing pavement and tapered at a slope of 1:4 (vertical:horizontal) or flatter to the bottom of the excavation. Full compensation for placing the material on a 1:4 slope, regardless of the number of times the material is required, and subsequent removing or reshaping of the material to the lines and grades shown on the plans shall be considered as included in the contract price paid for the materials involved and no additional compensation will be allowed therefor. No payment will be made for material placed in excess of that required for the structural section.

At those locations exposed to public traffic where guard railings are to be constructed, the Contractor shall schedule operations so that at the end of each working day there shall be no post holes open nor shall there be any railing posts installed without the blocks and rail elements assembled and mounted thereon.

Some plants required for this project may not be readily available and may have to be grown specifically for this project. Within 15 days after the contract has been approved, furnish to the Engineer a statement from the vendor that the order for the plants to be grown for this contract, including inspection plants and replacement plants, has been received and accepted by the vendor. The statement from the vendor must include the names, sizes, and quantities of plants ordered and the anticipated dates of delivery. Notify the Engineer in writing when the vendor has started to grow the plants.

At least 60 days before planting the plants, furnish the Engineer a statement from the vendor that the order for the plants required for this contract, including inspection plants, has been received and accepted by the vendor. The statement from the vendor must include the names, sizes, and quantities of plants ordered and the anticipated date of delivery.

Place orders for replacement plants with the vendor at the appropriate time so that the roots of the replacement plants are not in a root-bound condition.

At least 60 days before applying seeds, furnish the Engineer a statement from the vendor that the order for the seed required for this contract has been received and accepted by the vendor. The statement from the vendor must include the names and quantity of seed ordered and the anticipated date of delivery.

The Engineer designates ground locations of erosion control by directing the placing of stakes or other suitable markers before application of erosion control materials as specified under "Erosion Control (Type D)," of these special provisions.

When embankment settlement periods or surcharge embankment settlement periods are specified, the settlement periods and the deferment of portions of the work shall comply with the provisions in Section 19-6.025, "Settlement Period," of the Standard Specifications and in "Earthwork" of these special provisions.

10-1.585 HABITAT RESTORATION SIGN

Habitat restoration signs shall be furnished and installed at the locations shown on the plans, and in conformance with the details shown on the plans, these specifications and as directed by the Engineer.

Habitat restoration signs shall consist of sign panels, posts and sign panel mounting hardware.

Habitat restoration signs shall conform to Section 56-2, "Roadside Signs," of the Standard Specifications and these special provisions.

Posts for habitat restoration signs shall conform to Section 56-1.02E, "Pipe Posts," of the Standard Specifications

Habitat restoration signs will be measured by the unit, as determined from the actual count in place.

The contract unit price paid for habitat restoration sign shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in habitat restoration signs, complete in place, as shown on the plans, as specified in the Standard Specifications, these special provisions, and as directed by the Engineer.

10-1.586 INFORMATION SIGN

Information signs shall be furnished and installed at the locations shown on the plans, in conformance with the details shown on the plans and as directed by the Engineer.

Information signs shall consist of sign panels, sign panel mounting hardware, sign post, and post footing.

Information signs shall conform to Section 56-2, "Roadside Signs," of the Standard Specifications and these special provisions.

Information signs shall be measured by the unit, as determined from the actual count in place.

The contract unit price paid for information sign shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in furnishing and installing information sign, complete in place, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

10-1.795 TUBULAR STEEL GATE

Tubular steel gates shall be fabricated and installed at the location shown on the plans and in conformance with the details shown on the plans, these special provisions, and as directed by the Engineer.

Tubular steel gates shall be of steel conforming to the provisions in Section 80-3.01A, "Metal Posts and Braces," of the Standard Specifications.

Steel chain shall be 6 mm proof coil chain.

Concrete footings shall conform to the provisions in Section 80-4.01C, "Miscellaneous," of the Standard Specifications. Concrete footing shall be crowned at the top to shed water away from post.

Tubular steel gates shall be galvanized, after fabrication, in conformance with the provisions in Section 75-1.05, "Galvanizing," of the Standard Specifications.

Padlocks for tubular steel gates will be State-furnished. Attention is directed to "State-Furnished Materials," of these special provisions.

The quantity of tubular steel gates will be measured and paid for by the unit as determined from actual count in place.

The contract unit price paid for tubular steel gate shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in furnishing and installing tubular steel gate, complete in place, including concrete, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

SECTION 10-2 HIGHWAY PLANTING AND IRRIGATION SYSTEMS

10-2.01 GENERAL

The work performed in connection with highway planting and irrigation systems shall conform to the provisions in Section 20, "Erosion Control and Highway Planting," of the Standard Specifications and these special provisions.

COST BREAK-DOWN

The Contractor shall furnish the Engineer a cost break-down for the contract lump sum items of highway planting and irrigation system. Cost break-down tables shall be submitted to the Engineer for approval within 15 working days after the contract has been approved. Cost break-down tables will be approved, in writing, by the Engineer before any partial payment will be made for the applicable items of highway planting and irrigation system involved.

Attention is directed to "Time-Related Overhead" of these special provisions regarding compensation for time-related overhead.

Cost break-downs shall be completed and furnished in the format shown in the samples of the cost break-downs included in this section. Line item descriptions of work shown in the samples are the minimum to be submitted. Additional line item descriptions of work may be designated by the Contractor. If the Contractor elects to designate additional line item descriptions of work, the quantity, value and amount for those line items shall be completed in the same manner as for the unit descriptions shown in the samples. The line items and quantities given in the samples are to show the manner of preparing the cost break-downs to be furnished by the Contractor.

The Contractor shall determine the quantities required to complete the work shown on the plans. The quantities and their values shall be included in the cost break-downs submitted to the Engineer for approval. The Contractor shall be responsible for the accuracy of the quantities and values used in the cost break-downs submitted for approval.

The sum of the amounts for the line items of work listed in each cost break-down table for highway planting and for irrigation system work shall be equal to the contract lump sum price bid for Highway Planting and Irrigation System, respectively. Overhead and profit, except for time-related overhead, shall be included in each individual line item of work listed in a cost break-down table.

No adjustment in compensation will be made in the contract lump sum prices paid for highway planting and irrigation system due to differences between the quantities shown in the cost break-downs furnished by the Contractor and the quantities required to complete the work as shown on the plans and as specified in these special provisions.

Individual line item values in the approved cost break-down tables will be used to determine partial payments during the progress of the work and as the basis for calculating an adjustment in compensation for the contract lump sum items of highway planting and irrigation system due to changes in line items of work ordered by the Engineer. When the total of ordered changes to line items of work increases or decreases the lump sum price bid for either Highway Planting or Irrigation System by more than 25 percent, the adjustment in compensation for the applicable lump sum item will be determined in the same manner specified for increases and decreases in the total pay quantity of an item of work in Section 4-1.03B, "Increased or Decreased Quantities," of the Standard Specifications.

HIGHWAY PLANTING COST BREAK-DOWN

Contract No. 11-167884

UNIT DESCRIPTION	UNIT	APPROXIMATE QUANTITY	VALUE	AMOUNT
ROADSIDE CLEARING	LS	LUMP SUM		
PLANT (GROUP A)	EA	15,403		
PLANT (GROUP M)	EA	17,000		
PLANT (GROUP Z)	EA	12		
SOIL AMENDMENT	M3	217		
COMMERCIAL FERTILIZER (PACKETS)	EA	15,499		

TOTAL _____

IRRIGATION SYSTEM COST BREAK-DOWN

Contract No. 11-167884

UNIT DESCRIPTION	UNIT	APPROXIMATE QUANTITY	VALUE	AMOUNT
CONTROL AND NEUTRAL CONDUCTORS	LS	LUMP SUM		
24 STATION SOLAR IRRIGATION CONTROLLER	EA	2		
IRRIGATION CONTROLLER ENCLOSURE	EA	2		
25 MM PLASTIC PIPE (SUPPLY LINE)(PR-200)	M	5,200		
32 MM PLASTIC PIPE (SUPPLY LINE)(PR-200)	M	2,100		
40 MM PLASTIC PIPE (SUPPLY LINE)(PR-200)	M	45		
50 MM PLASTIC PIPE (SUPPLY LINE)(PR-200)	M	2,300		
75 MM PLASTIC PIPE (SUPPLY LINE)(PR-200)	M	190		
100 MM PLASTIC PIPE (SUPPLY LINE)(PR-200)	M	1,600		
40 MM ELECTRIC REMOTE CONTROL VALVE	EA	48		
100 MM GATE VALVE	EA	2		
50 MM BALL VALVE	EA	11		
75 MM WYE STRAINER	EA	1		
20 MM QUICK COUPLING VALVE	EA	6		
SPRINKLER (TYPE A-1)	EA	625		

TOTAL _____

CONTRACT NO. 11-167884
REPLACED PER ADDENDUM NO. 3 DATED JANUARY 31, 2008

CONTROL AND NEUTRAL CONDUCTORS COST BREAK-DOWN

Submit to the Engineer a cost break-down for control and neutral conductors work for review after the working drawings for the electrical components of the irrigation system (except electrical service) have been reviewed. Allow 20 days for review of each submittal or re-submittal.

Furnish the completed cost break-down in the format shown in the sample of the cost break-down included in this section. Line item descriptions of work shown in the sample are the minimum. You may designate additional line item descriptions of work. If you designate additional line item descriptions of work, the quantity, value, and amount for those line items must be completed in the same manner as for the line item descriptions shown in the sample.

Determine quantities required to complete the work as shown on the approved working drawings.

The sum of the amounts for the line items of work listed in the cost break-down for control and neutral conductors work must be equal to the contract lump sum price bid for control and neutral conductors. Include overhead and profit in each individual line item of work listed in the cost break-down table.

No adjustment in compensation is made in the contract lump sum price paid for control and neutral conductors work due to differences between the quantities shown in the cost break-down for control and neutral conductors work and the quantities required to complete the work.

The Engineer approves in writing the cost break-down for control and neutral conductors work before any progress payments are made for the item.

Individual line item values in the approved cost break-down tables will be used to determine partial payments during the progress of the work and as the basis for calculating an adjustment in compensation for the contract lump sum items of highway planting and irrigation system due to changes in line items of work ordered by the Engineer.

CONTROL AND NEUTRAL CONDUCTORS COST BREAK-DOWN

Contract No. **11-167884**

UNIT DESCRIPTION	UNIT	APPROXIMATE QUANTITY	VALUE	AMOUNT
AWG (UF)Conductors (provide size)	M			
AWG (UF) Conductors	M			
AWG (UF) Conductors	M			
No. 5 or larger Pull Box	EA			
Splices	EA			

TOTAL _____

CONTRACT NO. 11-167884
REPLACED PER ADDENDUM NO. 3 DATED JANUARY 31, 2008

10-2.02 BLANK

10-2.03 BLANK

10-2.04 HIGHWAY PLANTING

The work performed in connection with highway planting shall conform to the provisions in Section 20-4, "Highway Planting," of the Standard Specifications and these special provisions.

HIGHWAY PLANTING MATERIALS

Soil Amendment

Soil amendment shall conform to the requirements specified in "Amendments to July 1999 Standard Specifications," of these special provisions.

Commercial Fertilizer (Packets)

Commercial fertilizer (packet) shall be slow or controlled release and shall be in a biodegradable packet form. The packet shall gradually release nutrients over a 12-month period. Each packet shall have a mass of $10 \text{ g} \pm 1 \text{ g}$ and shall have the following guaranteed chemical analysis:

Ingredient	Percentage
Nitrogen	20
Phosphoric Acid	10
Water Soluble Potash	5

ROADSIDE CLEARING

Prior to preparing planting areas or commencing irrigation trenching operations for planting areas, trash and debris shall be removed from these areas and a distance of 3 m beyond the edges of those areas. At locations where proposed planting areas are 3.6 m or more from the edges of fences, , the clearing limit shall be 2 m beyond the outer limits of the proposed planting area.

In addition to removing trash and debris, the project area shall be cleared as specified herein:

- A. Weeds shall be killed and removed within the planting areas and between the planting areas and the barbed wire fence.
- B. All non-native plant species shall be killed and removed within the planting areas and between the planting areas and the barbed wire fence. The non-native plant species to be killed and removed include but are not limited to, tamarisk and arundo donax (giant reed).

Non-native plants shall be killed and removed as follows:

- A. All seed stalks and flower heads shall be bagged for disposal immediately after being removed and before transport through the project limits.
- B. All above ground plant mass shall be cut and removed prior to removal of stumps, roots or rhizomes.
- C. Plant stumps, roots or rhizomes shall be removed by chemical means. Chemical removal shall be performed as follows:
 - 1. Chemical removal shall include cutting plants off 50 mm above the ground and applying pesticide immediately (within one minute) to the cut.
- D. Removed material shall be disposed of outside the highway right of way in conformance with the provisions in Section 7-1.13, "Disposal of Material Outside the Highway Right of Way," of the Standard Specifications.

After the initial roadside clearing is complete, additional roadside clearing work shall be performed as necessary to maintain the areas, as specified above, in a neat appearance until the start of the plant establishment period. This work shall include the following:

- A. Trash and debris shall be removed.
- B. Rodents shall be controlled.
- C. Weed growth and non-native plants shall be killed before the weeds and non-native plants reach the seed stage of growth or exceed 150 mm in length, whichever occurs first.
- D. Weeds in plant basins, including basin walls, shall be removed by hand pulling, after the plants have been planted.

Weed Control

Weed control shall also conform to the following:

- A. All weeds and non-native plant material shall be killed with glyphosate.
- B. Tumbleweeds shall be removed by hand pulling before the tumbleweeds reach a height of 150 mm.
- C. Removed weeds and non-native plant material shall be disposed of outside the highway right of way in conformance with the provisions in Section 7-1.13, "Disposal of Material Outside the Highway Right of Way," of the Standard Specifications.

Roadside clearing work shall not include work required to be performed as clearing and grubbing as specified in Section 16, "Clearing and Grubbing," of the Standard Specifications.

PESTICIDES

Pesticides used to control weeds shall conform to the provisions in Section 20-4.026, "Pesticides," of the Standard Specifications. Except as otherwise provided in these special provisions, pesticide use shall be limited to the following materials:

Glyphosate

If the Contractor elects to request the use of other pesticides on this project, the request shall be submitted, in writing, to the Engineer not less than 15 days prior to the intended use of the other pesticides. Except for the pesticides listed in these special provisions, no pesticides shall be used or applied without prior written approval of the Engineer.

Pesticides shall not be applied within the limits of the plant basins. Pesticides shall not be applied in a manner that allows the pesticides to come in contact with the foliage and woody parts of the plants.

PLANTING

Backfill material for plant holes shall be a mixture of soil and soil amendment. The quantity of soil amendment shall be as shown on the Plant List. Soil amendment shall conform to the provisions in Section 20-2.03, "Soil Amendment," of the Standard Specifications. Backfill material shall be thoroughly mixed and uniformly distributed throughout the entire depth of the plant hole without clods and lumps.

Commercial fertilizer packets shall be placed in the backfill of each plant at the time of planting and at the rate shown on the Plant List to within 150 to 200 mm of the soil surface and approximately 25 mm from the roots. When more than one fertilizer packet is required per plant, the packets shall be distributed evenly around the root ball.

Mulch will not be required in the plant basins when mulch is not indicated on the Plant List for the plants involved.

Attention is directed to "Irrigation Systems Functional Test" of these special provisions regarding functional tests of the irrigation systems. Planting shall not be performed in an area until the functional test has been completed for the irrigation system serving that area.

LINER PLANTS

Liner plants shall be furnished in containers with a minimum size of 57 mm x 57 mm x 87 mm (rose pot). Liner plant containers made of biodegradable material shall not be used. All liner plants shall be removed from their containers at the time of planting.

Liner plants shall not be planted before the soil is moist to a minimum depth of 200 mm, unless otherwise approved in writing by the Engineer.

PLANT ESTABLISHMENT WORK

The plant establishment period shall be Type 2 and shall not be less than 250 working days.

During the plant establishment period, the Engineer and the Contractor or his supervisory representative shall hold monthly meetings at the project site to evaluate the plant establishment work.

A seasonal watering schedule shall be submitted to the Engineer in writing during the first week of March, June, September and November for use during the plant establishment period. The seasonal watering schedules shall be entered into the controllers by the Contractor.

Weeds within plant basins, including basin walls, shall be controlled by hand pulling.

Weeds and non-native plants outside of plant basins, and within roadside clearing areas shall be controlled by killing and removing. Weeds and non-native plants shall be killed and removed before they reach the seed stage of growth or exceed 150 mm in height, whichever occurs first. Removed weeds, non-native plants, trash and debris shall be disposed of in conformance with the provisions in Section 7-1.13, "Disposal of Materials Outside the Highway Right of Way," of the Standard Specifications.

At the option of the Contractor, plants of a larger container size than those originally specified may be used for replacement plants during the first 125 working days of the plant establishment period. The use of plants of a larger container size than those originally specified for replacement plants shall be at the Contractor's expense.

After 125 working days of the plant establishment period have been completed, replacement of plants, except for ground cover plants, shall be No. 1 size for liner size plants; No. 5 size for No. 1 size plants; and other plant replacement plants shall be the same size as originally specified.

Wye strainers shall be cleaned at least 15 days prior to the completion of the plant establishment period.

The final inspection shall be performed in conformance with the provisions in Section 5-1.13, "Final Inspection," of the Standard Specifications and shall be completed a minimum of 20 working days before the estimated completion of the contract.

10-2.05 IRRIGATION SYSTEMS

Irrigation systems shall be furnished and installed in conformance with the provisions in Section 20-5, "Irrigation Systems," of the Standard Specifications, except materials containing asbestos fibers shall not be used.

Attention is directed to the provisions in "Obstructions" of these special provisions, regarding work over or adjacent to existing underground facilities. Excavation for proposed irrigation facilities shall not be started until the existing underground facilities have been located.

Method A pressure testing shall conform to the provisions in Section 20-5.03H(1), "Method A", of the Standard Specifications, except leaks that develop in the tested portion of the system shall be located and repaired after each test period when a drop of more than 35 kPa is indicated by the pressure gage. After the leaks have been repaired, the one hour pressure test shall be repeated and additional repairs made until the drop in pressure is 35 kPa or less.

Pipe supply lines shall be pressure tested in conformance with the provisions in Section 20-5.03H, "Pressure Testing," of the Standard Specifications, except the pipe (supply line) on the discharge side of the control valve shall be tested by Method B as specified in Section 20-5.03H(2), "Method B," of the Standard Specifications.

VALVE BOXES

Valve boxes shall conform to the provisions in Section 20-2.24, "Valve Boxes," of the Standard Specifications, except as otherwise provided herein.

Covers for concrete valve boxes shall be glass fiber reinforced plastic, plastic, or concrete, .

Covers for plastic valve boxes shall be glass fiber reinforced plastic or plastic.

All holes in valve box covers shall be sealed.

Valve boxes with plastic covers shall be identified on the top surface of the covers by branding the appropriate abbreviations for the irrigation facilities contained in the valve boxes as shown on the plans. Valve boxes that contain remote control valves shall be identified by the appropriate letters and numbers (controller and station numbers). The letters and numbers shall be 50 mm in height.

Valve boxes with concrete or glass fiber reinforced plastic covers shall be identified on the top surface of the covers by labels containing the appropriate abbreviation for the irrigation facility contained in the valve box as shown on the plans. Valve boxes that contain remote control valves shall be identified by the appropriate letters and numbers (controller and station numbers). Labels for valve boxes shall conform to the provisions in Section 20-5.03F, "Valves and Valve Boxes," of the Standard Specifications.

Label material shall be plate plastic.

BALL VALVES

Ball valves shall be furnished and installed as shown on the plans and in conformance with these special provisions. Ball valves shall have a two-piece brass or bronze body, full port opening, and shall conform to the following:

Specification	Minimum Requirement
Non-shock cold water working pressure	2760 kPa
Seats	TFE (Teflon)
O-Ring Seals	TFE (Teflon)

Ball valves shall be of the same size as the pipeline which the valves serve, unless otherwise noted on the plans. Ball valves shall be installed in a valve box.

GATE VALVES

Gate valves shall be as shown on the plans and in conformance with the provisions in Section 20-2.28, "Gate Valves," of the Standard Specifications and these special provisions.

Gate valves, 75 mm and larger in size, shall be furnished with a square nut and 3 long shank keys that will operate the valve.

Gate valves, 75 mm and larger in size, shall be flanged type gate valves. Pipe flanges used to connect plastic or metal pipe to gate valves shall be plastic or metal.

Gate valves shall have a solid bronze or brass wedge.

ELECTRIC AUTOMATIC IRRIGATION COMPONENTS

Irrigation Controllers

Irrigation controllers shall be solar automatic irrigation controllers conforming to the following:

- A. Photovoltaic 24-station irrigation controllers, photovoltaic power system, computer with lockable, waterproof, vandal resistant case, shall be manufactured as one complete unit.
- B. All power will be provided by an internal photovoltaic system. Power shall be available for continuous 24-hour operation under the minimum light equivalent to 25 percent of ambient light at 55 degrees latitude.
- C. The computer liquid-crystal display will be powered by a 9-volt battery key mechanism.
- D. The irrigation controller shall have an output digital control pulse at 3.5-volts, which will operate a valve solenoid actuator within 300 meter distance.
- E. Irrigation controller shall be fully automatic and capable of operating a complete one day to 39 day cycle, scheduling up to 16 totally independent programs, each having its own start time, day cycle, assigned stations, duration, and program time. Each station shall be capable of 1 minute to 5 hours and 59 minutes increments with separate setting for hours and minutes.
- F. Irrigation controller shall have an emergency program backup system with a user-defined fail-safe program and system parameters which are stored in non-erasable memory.
- G. Irrigation controller shall be installed on a vertical mounting tube, mounted as shown on the plans and in conformance with the manufacturer's recommendations.
- H. Low voltage control and neutral conductors and splice connectors shall be manufactured by the same company.
- I. The watering time of each station shall be displayed on the face of the control panel.

Electric Remote Control Valves

Electric remote control valves shall conform to the provisions in Section 20-2.23, "Control Valves," of the Standard Specifications and the following:

- A. Valves shall be glass filled nylon, brass, or bronze construction.
- B. Valves shall be angle pattern (bottom inlet) or straight pattern (side inlet) as shown on the plans.
- C. Valves shall be equipped with a self-flushing feature manufactured to be used with recycled water. Valves shall not have external tubing.
- D. Electric remote control valves shall have manual external and internal bleed capability.
- E. Valve solenoids for (solar/battery) controller shall be DC latching and operate on 3.5 V.
- F. Valve solenoids shall be one piece with plunger and spring secured to the solenoid

Pull Boxes

Pull box installations shall conform to the provisions in Section 20-5.027I, "Conductors, Electrical Conduits and Pull Boxes," of the Standard Specifications.

Conductors

Low voltage, as used in this section "Conductors," shall mean 36 V or less.

Low voltage control and neutral conductors in pull boxes and valve boxes, at irrigation controller terminals, and at splices shall be marked as follows:

- A. Conductor terminations and splices shall be marked with adhesive backed paper markers or adhesive cloth wrap-around markers, with clear, heat-shrinkable sleeves sealed over the markers.
- B. Non-spliced conductors in pull boxes and valve boxes shall be marked with clip-on, "C" shaped, white extruded polyvinyl chloride sleeves. Marker sleeves shall have black, indented legends of uniform depth with transparent overlays over the legends and "chevron" cuts for alignment of 2 or more sleeves.

Markers for the control conductors shall be identified with the appropriate number or letter designations of irrigation controllers and station numbers. Markers for neutral conductors shall be identified with the appropriate number or letter designations of the irrigation controllers.

The color of low voltage neutral and control conductor insulation, except for the striped portions, shall be homogeneous throughout the entire thickness of the insulation.

Insulation for conductors may be UL listed polyethylene conforming to UL44 test standards with a minimum insulation thickness of 1.05 mm for wire sizes 10AWG and smaller.

IRRIGATION SYSTEMS FUNCTIONAL TEST

Functional tests for the irrigation controllers and associated automatic irrigation systems shall conform to the provisions in Section 20-5.027J, "Testing," of the Standard Specifications and these special provisions.

Tests shall demonstrate to the Engineer, through one complete cycle of the irrigation controllers in the automatic mode, that the associated automatic components of the irrigation systems operate properly. If automatic components of the irrigation systems fail a functional test, these components shall be repaired at the Contractor's expense and the testing repeated until satisfactory operation is obtained.

Associated automatic components shall include, but not be limited to, booster pump systems, and remote control valves.

Upon completion of work on an irrigation system, including correction of deficiencies and satisfactory functional tests for the systems involved, the plants to be planted in the area watered by the irrigation system may be planted provided the planting areas have been prepared as specified in these special provisions.

PIPE

Plastic Pipe

Plastic pipe supply lines shall be polyvinyl chloride (PVC) 1120 or 1220 pressure rated pipe with the minimum pressure rating (PR) shown on the irrigation system cost break-down.

Plastic pipe supply lines and fittings that are 100 mm or larger in diameter on the supply side of control valves shall be the rubber ring gasket type, except when pressure rating (PR) 315 plastic pipe supply line is required.

Plastic pipe supply lines less than 100 mm in diameter shall have solvent cemented type joints. Primers shall be used on the solvent cemented type joints.

Plastic pipe supply lines (main) shall have a minimum cover of 0.45 m.

Fittings for plastic pipe supply lines with a pressure rating (PR) of 315 shall be Schedule 80.

IRRIGATION CONTROLLER ENCLOSURE

Enclosures shall be fabricated of structural steel angles and flattened expanded metal and shall be installed over irrigation controllers on a portland cement concrete pad as shown on the plans and in conformance with these special provisions.

Metal for sides, ends and top panels shall be fabricated from No. 9 expanded metal. The flattened expanded metal openings shall be approximately 20 mm by 45 mm in size.

Expanded metal panels shall be attached to the steel frames by a series of welds, not less than 6.4 mm in length and spaced not more than 100 mm on centers, along the edges of the enclosure.

Padlocks will be State-furnished in accordance with "State-furnished Materials" of these special provisions.

Enclosures shall be galvanized, after fabrication, in conformance with the provisions in Section 75-1.05, "Galvanizing," of the Standard Specifications.

Concrete for the concrete pad shall conform to Section 90-10, "Minor Concrete," of the Standard Specifications.

Hold down bolt assemblies shall be galvanized and shall be installed when the portland cement concrete pad is still plastic. Nuts shall be hexagonal and washers shall be the lock type.

Enclosures shall be painted with one application of a commercial quality pre-treatment, vinyl wash primer and a minimum of one application of a commercial quality, exterior enamel for metal. The finish color shall be light brown.

All parts of the irrigation controller enclosure, including hold down assemblies, may be constructed of stainless steel instead of standard steel materials specified above. Stainless steel enclosures shall conform to the provisions herein except galvanizing, priming and painting shall not be required. Stainless steel enclosures shall be powder coated a light brown color by the manufacturer.

The minimum clearance between the irrigation controller and the irrigation controller enclosure shall be 50 mm.

SPRINKLERS

Sprinklers shall conform to the type, pattern, material, and operating characteristics listed in the "Sprinkler Schedule" shown on the plans.

WYE STRAINERS

Wye strainers shall be installed on the upstream side of the electric remote control valves as shown on the plans.

When garden valves are opened, discharge shall be up and out of the valve box.

FINAL IRRIGATION SYSTEM CHECK

A final check of new irrigation facilities shall be performed not more than 40 working days and not less than 30 working days prior to acceptance of the contract.

The length of watering cycles using potable water measured by water meters for the final check of irrigation facilities will be determined by the Engineer.

Remote control valves connected to new irrigation controllers shall be checked for automatic performance when the controllers are in automatic mode.

Unsatisfactory performance of irrigation facilities installed or modified by the Contractor shall be repaired and rechecked at the Contractor's expense until satisfactory performance is obtained, as determined by the Engineer.

Nothing in this section "Final Irrigation System Check" shall relieve the Contractor of full responsibility for making good or repairing defective work or materials found before the formal written acceptance of the entire contract by the Director.

Full compensation for checking the irrigation systems prior to the acceptance of the contract shall be considered as included in the contract lump sum price paid for plant establishment work and no additional compensation will be allowed therefor.

ENGINEER'S ESTIMATE
11-167884

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
1	070012	PROGRESS SCHEDULE (CRITICAL PATH METHOD)	LS	LUMP SUM	LUMP SUM	
2	070018	TIME-RELATED OVERHEAD	WDAY	650		
3	071325	TEMPORARY FENCE (TYPE ESA)	M	1170		
4	012339	PREPARE CODE OF SAFE WORKING PRACTICES	LS	LUMP SUM	LUMP SUM	
5	074016	CONSTRUCTION SITE MANAGEMENT	LS	LUMP SUM	LUMP SUM	
6	074019	PREPARE STORM WATER POLLUTION PREVENTION PLAN	LS	LUMP SUM	LUMP SUM	
7	074023	TEMPORARY EROSION CONTROL	M2	313 000		
8	074028	TEMPORARY FIBER ROLL	M	6620		
9	074032	TEMPORARY CONCRETE WASHOUT FACILITY	EA	7		
10	074033	TEMPORARY CONSTRUCTION ENTRANCE	EA	11		
11	074037	MOVE-IN/MOVE-OUT (TEMPORARY EROSION CONTROL)	EA	6		
12	074041	STREET SWEEPING	LS	LUMP SUM	LUMP SUM	
13 (S)	120090	CONSTRUCTION AREA SIGNS	LS	LUMP SUM	LUMP SUM	
14 (S)	120100	TRAFFIC CONTROL SYSTEM	LS	LUMP SUM	LUMP SUM	
15 (S)	120120	TYPE III BARRICADE	EA	62		
16 (S)	120151	TEMPORARY TRAFFIC STRIPE (TAPE)	M	950		
17 (S)	120166	CHANNELIZER (SURFACE MOUNTED) (LEFT IN PLACE)	EA	30		
18 (S)	128650	PORTABLE CHANGEABLE MESSAGE SIGN	EA	4		
19 (S)	129000	TEMPORARY RAILING (TYPE K)	M	760		
20 (S)	012340	TRAFFIC PLASTIC DRUM	EA	160		

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
21 (S)	129100	TEMPORARY CRASH CUSHION MODULE	EA	28		
22	012341	CUT AND CAP TILE DRAIN	EA	92		
23	150224	ABANDON MANHOLE	EA	7		
24	150605	REMOVE FENCE	M	1210		
25	150645	REMOVE BARRICADE	EA	20		
26 (S)	150717	REMOVE TRAFFIC STRIPE AND PAVEMENT MARKING	M2	200		
27	150730	REMOVE CHANNELIZERS	EA	28		
28	150742	REMOVE ROADSIDE SIGN	EA	10		
29	012342	ADJUST MANHOLE COVER TO GRADE	EA	2		
30	152610	MODIFY MANHOLE	EA	2		
31 (S)	153103	COLD PLANE ASPHALT CONCRETE PAVEMENT	M2	1370		
32	153229	REMOVE CONCRETE BARRIER (TYPE K)	M	140		
33	160101	CLEARING AND GRUBBING	LS	LUMP SUM	LUMP SUM	
34	170101	DEVELOP WATER SUPPLY	LS	LUMP SUM	LUMP SUM	
35	190101	ROADWAY EXCAVATION	M3	721 000		
36	012343	ROADWAY EXCAVATION (INFECTIOUS SUBSTANCE AND ORGANIC MATERIAL)	M3	4440		
37	190110	LEAD COMPLIANCE PLAN	LS	LUMP SUM	LUMP SUM	
38 (F)	192003	STRUCTURE EXCAVATION (BRIDGE)	M3	4660		
39 (F)	192049	STRUCTURE EXCAVATION (SOLDIER PILE WALL)	M3	65		
40 (F)	193003	STRUCTURE BACKFILL (BRIDGE)	M3	2600		

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
41 (F)	193029	STRUCTURE BACKFILL (SOLDIER PILE WALL)	M3	20		
42 (F)	193119	LEAN CONCRETE BACKFILL	M3	15		
43	198001	IMPORTED BORROW	M3	568 000		
44 (S)	203016	EROSION CONTROL (TYPE D)	M2	114 000		
45	208038	NPS 3 SUPPLY LINE (BRIDGE)	M	975		
46 (S-F)	208256	100 MM PLASTIC PIPE (PR 200) (SUPPLY LINE)	M	27		
47 (S-F)	012344	300 MM PVC (C900)	M	1040		
48 (S)	208304	WATER METER	EA	1		
49 (S)	705954	300 MM GATE VALVE	EA	10		
50 (S)	208494	100 MM GATE VALVE	EA	1		
51 (S)	208731	200 MM CORRUGATED HIGH DENSITY POLYETHYLENE PIPE CONDUIT	M	620		
52	220101	FINISHING ROADWAY	LS	LUMP SUM	LUMP SUM	
53	250401	CLASS 4 AGGREGATE SUBBASE	M3	110 000		
54	260201	CLASS 2 AGGREGATE BASE	M3	44 000		
55	374002	ASPHALTIC EMULSION (FOG SEAL COAT)	TONN	6		
56	390102	ASPHALT CONCRETE (TYPE A)	TONN	12 100		
57	390108	ASPHALT CONCRETE BASE (TYPE A)	TONN	47 900		
58	394001	PLACE ASPHALT CONCRETE DIKE	M	4830		
59	394002	PLACE ASPHALT CONCRETE (MISCELLANEOUS AREA)	M2	1080		
60	397001	ASPHALTIC EMULSION (PAINT BINDER)	TONN	6		

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
121 (F)	041103	SLOPE PAVING (STAMPED CONCRETE)	M2	1990		
122 (F)	721810	SLOPE PAVING (CONCRETE)	M3	335		
123	729010	ROCK SLOPE PROTECTION FABRIC	M2	3970		
124	731502	MINOR CONCRETE (MISCELLANEOUS CONSTRUCTION)	M3	14		
125 (F)	731517	MINOR CONCRETE (GUTTER)	M	45		
126 (S-F)	750001	MISCELLANEOUS IRON AND STEEL	KG	16 033		
127 (S-F)	750505	BRIDGE DECK DRAINAGE SYSTEM	KG	1270		
128 (S)	800008	FENCE (TYPE BW, 4-STRAND, METAL POST)	M	7640		
129 (S)	800391	CHAIN LINK FENCE (TYPE CL-1.8)	M	3750		
130 (S)	012349	CHAIN LINK FENCE (TYPE CL-2.4)(MOD)	M	1100		
131 (S)	801194	2.4 M WIRE MESH GATE	EA	9		
132 (S)	802592	2.4 M CHAIN LINK GATE (TYPE CL-1.8)	EA	13		
133	820107	DELINEATOR (CLASS 1)	EA	88		
134	820114	KILOMETER POST MARKER	EA	8		
135	820118	GUARD RAILING DELINEATOR	EA	480		
136 (S)	832001	METAL BEAM GUARD RAILING	M	3540		
137 (S-F)	833033	CHAIN LINK RAILING (TYPE 7 MODIFIED)	M	410		
138 (S)	833080	CONCRETE BARRIER (TYPE K)	M	180		
139 (S-F)	839521	CABLE RAILING	M	65		
140 (S)	839541	TRANSITION RAILING (TYPE WB)	EA	16		

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
161 (S)	860601	FLASHING BEACON	LS	LUMP SUM	LUMP SUM	
162 (S)	860761	LIGHTING CONDUIT (BRIDGE)	M	1040		
163 (S-F)	860796	SPRINKLER CONTROL CONDUIT (BRIDGE)	M	975		
164 (S)	860931	TRAFFIC MONITORING STATION (LOCATION 1)	LS	LUMP SUM	LUMP SUM	
165 (S)	860932	TRAFFIC MONITORING STATION (LOCATION 2)	LS	LUMP SUM	LUMP SUM	
166	993002	FIRE HYDRANT	EA	2		
167	993013	150 MM FIRE HYDRANT ASSEMBLY	EA	2		
168	BLANK					
169 (S)	208000	IRRIGATION SYSTEM	LS	LUMP SUM	LUMP SUM	
170 (S)	200001	HIGHWAY PLANTING	LS	LUMP SUM	LUMP SUM	
171 (S)	204099	PLANT ESTABLISHMENT WORK	LS	LUMP SUM	LUMP SUM	
172	013433	INFORMATION SIGN	EA	1		
173	013434	HABITAT RESTORATION SIGN	EA	7		
174	013435	TUBULAR STEEL GATE	EA	1		
175	999999	MOBILIZATION	LS	LUMP SUM	LUMP SUM	

TOTAL BID: _____